

09/699,392

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REMARKS

Claims 1-27 are currently pending in the subject application and are presently under consideration.

Applicants' representative notes with appreciation the allowance of claims 15-27, as well as the indication that claims 4-14 would be allowable if recast in independent form to recite respective base claims and any intervening claims. It is believed such amendments are not necessary in view of the below-noted deficiencies of the cited art. However, applicants' representative reserves the option to recast such claims at a later date if necessary.

Favorable consideration of the subject patent application is respectfully requested in view of the comments herein.

**I. Rejection of Claims 1-3 Under 35 U.S.C. §102(e)**

Claims 1-3 stand rejected under 35 U.S.C. §102(e) as being anticipated by Yuzawa *et al.* (U.S. 6,557,106). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Yuzawa *et al.* does not teach or suggest each and every limitation as recited in the subject claims.

A single prior art reference anticipates a patent claim only if it expressly or inherently describes each and every limitation set forth in the patent claim. *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the ... claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The claimed invention relates to a system for identifying valid connections between components of an electrical system and for preventing damage which may be caused as a result of invalid connections. In particular, the invention relates to a method

09/699,392

00AB123

and system for detecting a valid connection between a processor and an adapter in a programmable logic controller (PLC) system and for protecting the components thereof in the event of an invalid connection. Specifically, independent claim 1 recites *...validating the connection of a multi-wired cable between first and second electrical components...*

Currently, conventional systems rely on the use of different types of connections and wirings to ensure proper mating between bus ports. Applicants' novel invention aides in the reduction of manufacturing and maintenance costs of configured connection ports and cables by allowing the use of the same type of cable for different types of connections in a PLC system. In addition, use of horizontal space on a local rail is minimized by using a *multi-wired cable* which extends the system bus logically but not physically. To validate that all *multi-wired cable* connections are appropriate, the subject invention generates a pre-specified voltage level when the cable is properly connected and both components are powered up. When the desired voltage level is not present, an error signal is asserted that consequently turns electronic switches off.

Yuzawa *et al.* does not teach or suggest such aspects. Rather, the cited reference teaches a method to detect an abnormality in the supply of operating power to a PC card in a personal computer. (*See Yuzawa et al., Abstract*). While Yuzawa *et al.* suggests monitoring power to a PC card by a device driver utilizing information stored as bits in memory registers, it is silent towards verifying *multi-wired cable* connections between adapters and processors along a system bus, or between adjacent I/O modules. Hence, Yuzawa *et al.* does not provide the beneficial reduction in cost found in applicants' novel invention. Thus, it is readily apparent that Yuzawa *et al.* does not teach or suggest such features of applicants' invention as recited in the subject claims, and this rejection should be withdrawn.

09/699,392

00AB123

**CONCLUSION**

The present application is believed to be in condition for allowance, in view of the above comments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 (Ref. No. ALBR p237us).

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number listed below.

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